

### Abstract

An integrated process for producing organoperoxide catalyst containing silicone rubber compositions with substantially reduced processing time and labor input compared to standard methods for producing such compositions. The process involves forming a powdered silicone rubber composition comprising a polydiorganosiloxane gum and a reinforcing filler, treating the reinforcing filler with a treating agent at a temperature greater than about 80°C, cooling the powdered silicone rubber composition by means of a bulk solid cooling apparatus, and admixing the cooled powdered silicone rubber with a peroxide catalyst either before, during, or after a massing step.